Indices, 1972

INDUSTRIAL ENGINEERING

Volume 4, 1972 Index

Subjects (coded) and titles

0100 Work Measurement

0110 Timing

"Work measurement today"; Mitchell Fein; August, page 14.

0115 Measuring operator performance

"Work sampling study of scattered maintenance workers"; Floyd S. Meck, Jr.; January, page 20.

"Variance analysis for patient-centered nursing management"; R. N. Davis, J. M. Cowie; July, page 26.

"Work measurement today"; Mitchell Fein; August, page 14.

"Work measurement: Concepts of normal pace"; Mitchell Fein; September, page 34.

0120 Measuring job difficulty

"Use of Biomechanical Profiles in work measurement"; E. R. Tichauer, H. Gage, L. B. Harrison; May, page 20.

0140 Basic motion standard data and PTS

"Simplified MTM simplifies method improvement"; Richard O. Schmid; July, page 32.

0145 Standard data

"IE's develop and use time-sharing computer services"; H. P. Lipowitz, M. J. Seiden; July, page 8.

"Work measurement today"; Mitchell Fein; August, page 14.

"Estimating electronics assembly costs"; W. R. Lasher, D. B. Wechsler; September, page 17.

0150 Control of standard times

"Timeless work sampling"; Thomas G. Kay; June, page 30.

0155 Special labor category standard times

"'Marshmallow' incentive pays off in dollars"; Louis P. Alaksin, Jr.; June, page 24.

"One-man incentive plan"; B. B. Beegle, T. J. Bricker; August, page 21.

"Work measurement for computer programming operations"; Richard L. Shell; October, page 32.

0160 Work sampling

"Work sampling study of scattered maintenance workers"; Floyd S. Meck, Jr.; January, page 20.

"Timeless work sampling"; Thomas G. Kay; June, page 30.

"One-man incentive plan"; B. B. Beegle, T. J. Bricker"; August, page 21.

"Work measurement for computer programming operations"; Richard L. Shell; October, page 32.

"Work sampling-everybody's doing it now"; H. D. I. Lowrance; November, page 44.

0165 Macro-measurements

"Short interval scheduling: a labor control technique"; Mitchell Fein; February, page 14.

"Productivity opportunities for the 70's"; John E. Morrissey; August, page 6.

"Three steps to productivity improvement"; Donald C. Burnham; September, page 12.

"Simple system squeezes costs"; Pavan Rai; September, page 46.

0200 Methods

0215 Basic principles investigation

"The need for job enrichment is urgent"; Roy W. Walters; July, page 14.

0220 Evaluation procedures

"A rationale for heuristic program selection and evaluation"; J. P. Ignizio, R. M. Wyskida, M. R. Wilhelm; January, page 16.

0230 Installation procedures

"When 34-24-34 becomes 86-61-86"; Henry Kroeze; February, page 10.

0235 Operations design

"Air pallets integrate handling and machining into manufacturing system"; January, page 14.

"An IE profile: Richard Suhm"; Abbie Cohen; April, page 20.

"IE's improve city's solid waste collection"; R. M. Wyskida, J. N. D. Gupta; June, page 12.

"The need for job enrichment is urgent"; Roy W. Walters; July, page 14.

"TV checks smoking"; July, page 37.

0300 Facility Planning

0305 Plant layout analysis techniques

"Case for multi-story plant falls to single-level"; David Einbinder; January, page 26.

"Simulating passenger arrivals at airports"; R. Nanda, J. J. Browne, R. Lui; March, page 12.

"An analytical approach to design of high-rise stacker crane warehouse systems"; K. M. Bafna, R. Reed, Jr.; October, page 8.

0310 Plant layout basic principles

"Air pallets integrate handling and machining into manufacturing system"; January, page 14.

0330 Material handling analysis techniques

"Case for multi-story plant falls to single-level"; David Einbinder; January, page 26.

"Simulating passenger arrivals at airports"; R. Nanda, J. J. Browne, R. Lui; March, page 12.

"Simplified MTM simplifies method improvement"; Richard O. Schmid; July, page 32.

"Material handling improvement needs systems approach"; J. R. Dehlinger, G. S. Nash, H. K. Edwards; August, page 10.

0350 Material handling equipment design

"Air pallets integrate handling and machining into manufacturing system"; January, page 14.

"One-man handling crew"; March, page 24.

"An analytical approach to design of high-rise stacker

crane warehouse systems"; K. M. Bafna, R. Reed, Jr.; October, page 8.

0355 Maintenance

"Work sampling study of scattered maintenance workers"; Floyd S. Meck, Jr.; January, page 20.

"One-man handling crew"; March, page 24.

0360 Plant location

"Quantitative analysis of plant location"; Frederick C. Weston, Jr.; April, page 22.

0365 Plant design and construction

"Case for multi-story plant falls to single-level"; David Einbinder; January, page 26.

0370 Safety

"Portable booth for hearing tests"; May, page 17.

0380 Transportation

"A rationale for heuristic program selection and evaluation"; J. P. Ignizio, R. M. Wyskida, M. R. Wilhelm; January, page 16.

"PRT — an innovation in transportation"; S. E. G. Elias, R. E. Ward, M. A. Wilson; February, page 34.

"Simulating passenger arrivals at airports"; R. Nanda, J. J. Browne, R. Lui; March, page 12.

"One-man handling crew"; March, page 24.

0400 Applied Psychology

0405 Motivation and psychological aspects

"New dimensions in the management function"; Forrest H. Kirkpatrick; January, page 10.

"The conflict between IE and behavioral science"; David Sirota; June, page 34.

"The need for job enrichment is urgent"; Roy W. Walters; July, page 14.

"Productivity opportunities for the 70's"; John E. Morrissey; August, page 6.

"Japan's QC Circles"; John F. Hird; November, page 8.

"The Merrimack Valley study"; George J. Marotta, John J. Siderwitch; December, page 8.

0410 Physiological aspects

"Design tools and machines to fit the man"; Tarek M. Khalil; January, page 32.

0415 Sociological aspects

"New dimensions in the management function"; Forrest H. Kirkpatrick; January, page 10.

"Effectiveness in industrial engineering"; Richard K. Wilson; April, page 8.

"Productivity opportunities for the 70's"; John E. Morrissey; August, page 6.

"Three steps to productivity improvement"; Donald C. Burnham; September, page 12.

"The conflict between industrial engineering and industrial relations"; Paul Jennings; September, page 22.

0420 Biomechanics

"Design tools and machines to fit the man"; Tarek M. Khalil; January, page 32.

"Use of Biomechanical Profiles in work measurement"; E. R. Tichauer, H. Gage, L. B. Harrison; May, page 20.

0430 Collective bargaining

"Facing the realitites of industrial engineering in the 1970's"; Ben Fischer; November, page 39.

0435 Labor

"Effectiveness in industrial engineering"; Richard K. Wilson; April, page 8.

"The conflict between industrial engineering and industrial relations"; Paul Jennings; September, page 22.

0440 Training

"When 34-24-34 becomes 86-61-86"; Henry Kroeze; February, page 10.

"Work sampling — everybody's doing it now"; H. D. L. Lowrance; November, page 44.

0445 Learning

"Learning curves that work"; S. N. Goel, R. H. Becknell; May, page 28.

0455 Wage incentives plans

"Learning curves that work"; S. N. Goel, R. H. Becknell; May, page 28.

"'Marshmallow' incentive pays off in dollars"; Louis P. Alaksin, Jr.; June, page 24.

"Timeless work sampling"; Thomas G. Kay; June, page 30.

"The conflict between IE and behavioral science"; David Sirota; June, page 34.

"One-man incentive plan"; B. B. Beegle, T. J. Bricker; August, page 21.

"Work measurement: Concepts of normal pace"; Mitchell Fein; September, page 34.

"Facing the realities of industrial engineering in the 1970's"; Ben Fischer; November, page 39.

"The Merrimack Valley study"; George J. Marotta, John J. Siderwitch; December, page 8.

0460 Selection of personnel (staffing)

"Matrix management structures"; Robert E. Shannon; March, page 26.

"Scheduling manpower by mathematical programming"; Marvin Rothstein; April, page 29.

"Use of Biomechanical Profiles in work measurement"; E. R. Tichauer, H. Gage, L. B. Harrison; May, page 20.

"Industrial engineering: springboard to opportunity"; Edwin H. Gott; October, page 18.

"Guidelines for professional engineering employment"; November, page 46.

0500 Engineering economics

"Capital investment gets a booster shot"; Gerald A. Fleischer; March, page 20.

0600 Organization planning

0610 Social science aspects

"IE's take on urban problems"; Stanley Klein; September, page 32.

0625 Information theory

"Planning new applications of management information and decision systems"; June, page 19.

0630 Organization design

"Matrix management structures"; Robert E. Shannon; March, page 26.

"Linear responsibility charting"; Donald W. Barnes; July, page 17.

"Looking for a new job?" Mitchell Fein; October, page 15.

0640 Value engineering

"Value analysis and the marketing concept"; Leonard Groeneveld; February, page 24.

0650 Administration

"When 34-24-34 becomes 86-61-86"; Henry Kroeze; February, page 10.

"Value analysis and the marketing concept"; Leonard Groeneveld; February, page 24.

0700 Materials processing

0705 Tool engineering

"Design tools and machines to fit the man"; Tarek M. Khalil; January, page 32.

0720 Process research

"Cooperative manufacturing research"; Eugene L. Magad; January, page 36.

"How to select a spray booth"; August, page 32.

0730 Mechanization and automation

"Skin packaging skins costs"; June, page 28.

"TV checks smoking"; July, page 37.

0740 Inspection

"Decision analysis for optimal test sequencing"; P. D. Berger, A. Gerstenfeld; July, page 20.

"Product liability — a new challenge for IE's"; R. M. Jacobs, J. Mihalasky; November, page 13.

0745 Product research

"Value analysis and the marketing concept"; Leonard Groeneveld; February, page 24.

0800 Production planning and control

0805 Inventory control

"When EOQ isn't really economical"; Charles H. Wiersma; March, page 36.

"Nomograph simplifies excess inventory problem"; J. W. Foster, R. C. Higgins; May, page 18.

0815 Scheduling

"When EOQ isn't really economical"; Charles H. Wiersma; March, page 36.

"Allocating production with LP and the BOM processor"; N. Siemens, J. R. Byrd; April, page 12.

"Capital budgeting and machine loading model"; James R. Conlon; June, page 16.

"Scheduling system for an x-ray department"; George A. Sarkar; December, page 20.

0820 Dispatching

"Short interval scheduling: a labor control technique"; Mitchell Fein; February, page 14.

0825 Routing

"IE's improve city's solid waste collection"; R. M. Wyskida, J. N. D. Gupta; June, page 12.

0830 Packaging

"Skin packaging skins costs"; June, page 28.

"Simplified MTM simplifies method improvement"; Richard O. Schmid; July, page 32.

"Material handling improvement needs systems approach"; J. R. Dehlinger, G. S. Nash, H. K. Edwards; August, page 10.

0840 Analysis and measurement techniques for planning and control (systems engineering)

"Material handling improvement needs systems approach"; J. R. Dehlinger, G. S. Nash, H. K. Edwards, August, page 10.

"Improving quality by systems engineering"; Kenneth E. Case, Guest Editor; November, page 7.

0850 Stockkeeping and warehousing

"How much warehouse space?"; Alvin Etue; August, page 26.

"An analytical approach to design of high-rise stacker crane warehouse systems"; K. M. Bafna, R. Reed, Jr.; October, page 8.

0855 Control models and simulation

"Allocating production with LP and the BOM processor"; N. Siemens, J. R. Byrd; April, page 12.

"IMPICS: an algorithm and system for line-of-balance"; John G. H. Carlson; March, page 30.

0860 PERT, CPM, line balancing

"Moving the hospital to a new location"; Roland S. Hanson; November, page 32.

"The blob chart"; Edward A. Beimborn, W. Anthony Garvey; December, page 17.

0900 Data processing systems design

0905 Digital computers

"IE's develop and use time-sharing computer services"; H. P. Lipowitz, M. J. Seiden; July, page 8.

"Work measurement for computer programming operations"; Richard L. Shell; October, page 32.

0925 Auxiliary equipment

"Data collection is almost error-free"; Wilson F. Grabill, Jr.; May, page 12.

0930 Analysis techniques

"IE's improve city's solid waste collection"; R. M. Wyskida, J. N. D. Gupta; June, page 12.

0940 Information systems design

"IMPICS: an algorithm and system for line-of-balance"; John G. H. Carlson; March, page 30.

"Data collection is almost error-free"; Wilson F. Grabill, Jr.; May, page 12.

"Planning new applications of management information and decision systems"; Gad J. Selig; June, page 19.

"IE's develop and use time-sharing computer services"; H. P. Lipowitz, M. J. Seiden, July, page 8.

"Estimating electronics assembly costs"; W. R. Lasher, D. B. Wechsler; September, page 17.

"Computer-aided quality control system"; Raoji R. Patel; November, page 20.

1000 Applied mathematics and operations research

1005 Mathematical programming

"A rationale for heuristic program selection and evaluation"; J. P. Ignizio, R. M. Wyskida, M. R. Wilhelm; January, page 16.

"Allocating production with LP and the BOM processor"; N. Siemens, J. R. Byrd; April, page 12.

"Quantitative analysis of plant location"; Frederick C. Weston, Jr.; April, page 22.

"Scheduling manpower by mathematical programming"; Marvin Rothstein; April, page 29.

"Learning curves that work"; S. N. Goel, R. H. Becknell; May, page 28.

"Capital budgeting and machine loading model"; James R. Conlon; June, page 16.

"How much warehouse space?"; Alvin Etue; August, page 26.

1010 Waiting line theory

"Queuing model of a hospital emergency room"; W. Blaker Bolling; September, page 26.

1015 Simulation concepts

"Simulating passenger arrivals at airports"; R. Nanda, J. J. Browne, R. Lui; March, page 12.

1030 Probability theory

"Decision analysis for optimal test sequencing"; P. D. Berger, A. Gerstenfeld; July, page 20.

1040 Acceptance sampling

"Cost-based acceptance sampling"; K. E. Case, J. W. Schmidt, G. K. Bennett; November, page 26.

1045 Quality control techniques

"Improving quality by systems engineering"; Kenneth E. Case, Guest Editor; November, page 7.

"Japan's QC Circles"; John F. Hird; November, page 8.

"Product liability — a new challenge for IE's"; R. M. Jacobs, J. Mihalasky; November, page 13.

"Computer-aided quality control system"; Raoji R. Patel; November, page 20.

"Cost-based acceptance sampling"; K. E. Case, J. W. Schmidt, G. K. Bennett; November, page 26.

1100 Costs and cost control

1105 Accounting concepts

"Estimating electronics assembly costs"; W. R. Lasher, D. B. Wechsler; September, page 17.

1110 Inspection

"Cost-based acceptance sampling"; K. E. Case, J. W. Schmidt, G. K. Bennett; November, page 26.

1115 Budgets

"Capital budgeting and machine loading model"; James R. Conlon; June, page 16.

"Variance analysis for patient-centered nursing management"; R. N. Davis, J. M. Cowie; July, page 26.

1120 Control procedures

"IMPICS: an algorithm and system for line-of-balance"; John G. H. Carlson; March, page 30.

"Data collection is almost error-free"; Wilson F. Grabill, Jr.; May, page 12.

"Simple system squeezes costs"; Pavan Rai; September, page 46.

1125 Purchasing and economic lot sizes

"When EOQ isn't really economical"; Charles H. Wiersma; March, page 36.

"How to select a spray booth"; August, page 32.

1300 Industrial engineering

1305 Industrial engineering — general

"The mystical powers of the public relations committee"; Jim F. Wolbrink; January, page 24.

"Collective action task force wants inputs of AIIE members"; May, page 38.

"Wyllys G. Stanton, AIIE founder, 1904-1972"; October, page 37.

"Disciplines in conflict"; Harold C. Lowe, Elmo G. Lindquist; December, page 24.

1310 Industrial engineer

"Dr. Lillian Moller Gilbreth: 1878-1972"; Nancy Z. Reynolds; February, page 28.

"An IE profile: Richard Suhm"; Abbie Cohen; April, page 20.

"IE's take on urban problems"; Stanley Klein; September, page 32.

"Looking for a new job?"; Mitchell Fein; October, page 15.

"Industrial engineering: springboard to opportunity"; Edwin H. Gott; October, page 18.

"Guidelines for professional engineering employment"; November, page 46.

"Engineers' pension plans"; December, page 28.

1315 Management

"Effectiveness in industrial engineering"; Richard K. Wilson; April, page 8.

1320 Industrial engineering in hospitals

"An IE profile: Richard Suhm"; Abbie Cohen; April, page 20.

"Variance analysis for patient-centered nursing management"; R. N. Davis; J. M. Cowie; July, page 26.

"Queuing model of a hospital emergency room"; W. Blaker Bolling; September, page 26.

"Moving the hospital to a new location"; Roland S. Hanson; November, page 32.

"Scheduling system for an x-ray department"; George A. Sarkar; December, page 20.

Authors

Alaksin, Louis P., Jr.: "'Marshmallow' incentive pays off in dollars"; June, page 24.

Bafna, K. M., Peed, R., Jr.; "An analytical approach to design of high-rise stacker crane warehouse systems"; October, page 8.

Barnes, Donald W.; "Linear responsibility charting"; July, page 17.

Becknell, R. H. Goel, S. N.; "Learning curves that work"; May, page 28.

Beegle, B. B., Bricker, T. J.; "One-man incentive plan"; August, page 21.

Beimborn, Edward A., Garvey, W. Anthony; "The blob chart"; December, page 17.

Bennett, G. K., K. E. Case, J. W. Schmidt; "Cost-based acceptance sampling"; November, page 26.

Berger, P. D., Gerstenfeld, A.; "Decision analysis for optimal test sequencing"; July, page 20.

Bolling, W. Blaker; "Queueing model of a hospital emergency room"; September, page 26.

Bricker, T. J., Beegle, B. B.; "One-man incentive plan"; August, page 21.

Browne, R. Lui, Nanda, R.; "Simulating passenger arrivals at airports"; March, page 12.

Burnham, Donald C.; "Three steps to productivity improvement"; September, page 12.

Byrd, J. R., Siemens, N.; "Allocating production with LP and the BOM processor"; April, page 12.

Carlson, John G. H.; "IMPICS: an algorithm and system for line-of-balance"; March, page 30.

Case, Kenneth E., Guest Editor; "Improving quality by systems engineering"; November, page 7.

Case, K. E., Schmidt, J. W., Bennett, G. K.; "Cost-based acceptance sampling"; November, page 26.

Cohen, Abbie; "An IE profile: Richard Suhm"; April, page 20.

Conlon, James R.; "Capital budgeting and machine loading model"; June, page 16.

Cowie, J. M., Davis, R. N.; "Variance analysis for patient-centered nursing management"; July, page 26.

Davis, R. N., Cowie, J. M.; "Variance analysis for patient-centered nursing management"; July, page 26.

Dehlinger, J. R., Nash, G. S., Edwards, H. K.; "Material handling improvement needs systems approach"; August, page 10.

Edwards, H. K., Dehlinger, J. R., Nash, G. S.; "Material handling improvement needs systems approach"; August, page 10.

Einbinder, David; "Case for multi-story plant falls to single-level"; January, page 26.

Elias, S. E. G., Ward, R. E., Wilson, M. A.; "PRT — an innovation in transportation"; February, page 34.

Etue, Alvin; "How much warehouse space?"; August, page 26.

Fein, Mitchell; "Short interval scheduling: a labor control technique"; February, page 14.

Fein, Mitchell; "Work measurement today"; August, page 14.

Fein, Mitchell; "Work Measurement: Concepts of normal pace"; September, page 34.

Fein, Mitchell; "Looking for a new job?"; October, page 15.

Fischer, Ben; "Facing the realities of industrial engineering in the 1970's"; November, page 39.

Fleischer, Gerald A.; "Capital investment gets a booster shot"; March, page 20.

Foster, J. W., Higgins, R. C.; "Nomograph simplifies excess inventory problem"; May, page 18.

Gage, H., Harrison, L. B., Tichauer, E. R.; "Use of Biomechanical Profiles in work measurement"; May, page 20.

Garvey, W. Anthony, Beimborn, Edward A.; "The blob chart"; December, page 17.

Gerstenfeld, A., Berger, P. D.; "Decision analysis for optimal test sequencing"; July, page 20.

Goel, S. N., Becknell, R. H.; "Learning curves that work"; May, page 28.

Gott, Edwin H.; "Industrial engineering: springboard to opportunity"; October, page 18.

Grabill, Wilson F., Jr.; "Data collection is almost error-free"; May, page 12.

Groeneveld, Lenoard; "Value analysis and the marketing concept"; February, page 24.

Gupta, J. N. D., Wyskida, R. M.; "IE's Improve City's solid waste collection"; June, page 12.

Hanson, Roland S.; "Moving the hospital to a new location"; November, page 32.

Harrison, L. B., Gage, H., Tichauer, E. R.; "Use of Biomechanical Profiles in work measurement"; May, page 20.

Higgins, R. C., Foster, J. W.; "Nomograph simplifies excess inventory problem"; May, page 18.

Hird, J. F.; "Japan's QC Circles"; November, page 8.

Ignizio, J. P., Wyskida, R. M., Wilhelm, M. R.; "A rationale for heuristic program selection and evaluation"; January, page 16.

Jennings, Paul; "The conflict between industrial engineering and industrial relations"; September, page 22.

Kay, Thomas G.; "Timeless work sampling"; June, page 30.

Khalil, Tarek M.; "Design tools and machines to fit the man"; January, page 32.

Kirkpatrick, Forrest H.; "New dimensions in the management function"; January, page 10.

Klein, Stanley; "IE's take on urban problems"; September, page 32.

Kroeze, Henry; "When 34-24-34 becomes 86-61-86"; February, page 10.

Lasher, W. R., Wechsler, D. B.; "Estimating electronics assembly costs"; September, page 17.

Lindquist, Elmo G., Lowe, Harold C.; "Disciplines in conflict"; December, page 24.

Lipowitz, H. P., Seiden, M. J.; "IE's develop and use time-sharing computer services"; July, page 8.

Lowe, Harold C., Lindquist, Elmo G.; "Disciplines in conflict"; December, page 24.

Lowrance, H. D. L.; "Work sampling — everybody's doing it now"; November, page 44.

Lui, R., Nanda, R., Browne, J. J.; "Simulating passenger arrivals at airports"; March, page 12.

Magad, Eugene L.; "Cooperative manufacturing research"; January, page 36.

Marotta, George J., Siderwitch, John J.; "The Merrimack Valley study"; December, page 8.

Meck, Floyd S., Jr.; "Work sampling study of scattered maintenance workers"; January, page 20.

Mihalasky, J. Jacobs, R. M.; "Product liability — a new challenge for IE's"; November, page 13.

Morrissey, John E.; "Productivity opportunities for the 70's"; August, page 6.

Nanda, R., Browne, J. J., Lui, R.; "Simulating passenger arrivals at airports"; March, page 12.

Nash, G. S., Dehlinger, J. R., Edwards, H. K.; "Material handling improvement needs systems approach"; August, page 10.

Patel, Raoji R.; "Computer-aided quality control system"; November, page 20.

Rai, Pavan; "Simple system squeezes costs"; September, page 16.

Reed, R., Jr., Bafna, K. M.; "An analytical approach to design of high-rise stacker crane warehouse systems"; October, page 8.

Reynolds, Nancy Z.; "Dr. Lillian Moller Gilbreth: 1878-1972"; February, page 28.

Rothstein, Marvin; "Scheduling manpower by mathematical programming"; April, page 29.

Sarkar, George A.; "Scheduling system for an x-ray department"; December, page 20.

Schmid, Richard O.; "Simplified MTM simplifies method improvement"; July, page 32.

Schmidt, J. W., Case, K. E., Bennett, G. K.; "Cost-based acceptance sampling"; November, page 26.

Seiden, M. J., Lipowitz, H. P.; "IE's develop and use time-sharing computer services"; July, page 8.

Selig, Gad J.; "Planning new applications of management information and decision systems"; June, page 19.

Shannon, Robert E.; "Matrix management structures"; March, page 26.

Shell, Richard L.; "Work measurement for computer programming operations"; October, page 32.

Siderwitch, John J., Marotta, George J.; "The Merrimack Valley study"; December, page 8.

Siemens, N., Byrd, J. R.; "Allocating production with LP and the BOM processor"; April, page 12.

Sirota, David; "The conflict between IE and behavioral science"; June, page 34.

Tichauer, E. R., Gage, H., Harrison, L. B.; "Use of Biomechanical Profiles in work measurement"; May, page 20.

Walters, Roy W.; "The need for job enrichment is urgent"; July, page 14.

Ward, R. E., Elias, S. E. G., Wilson, M. A.; "PRT — an innovation in transportation"; February, page 34.

Wechsler, D. B., Lasher, W. R.; "Estimating electronics assembly costs"; September, page 17.

Weston, Frederick C., Jr.; "Quantitative analysis of plant location"; April, page 22.

Wiersma, Charles H.; "When EOQ isn't really economical"; March, page 36.

Wilhelm, M. R., Ignizio, J. P., Wyskida, R. M.; "A rationale for heuristic program selection and evaluation"; January, page 16.

Wilson, M. A., Elias, S. E. G., Ward, R. E.; "PRT — an innovation in transportation"; February, page 34.

Wilson, Richard K.; "Effectiveness in industrial engineering"; April, page 8.

Wolbrink, Jim F.; "The mystical powers of the public relations committee"; January, page 24.

Wyskida, R. M., Ignizio, J. P., Wilhelm, M. R.; "A rationale for heuristic program selection and evaluation"; January, page 16.

Wyskida, R. M., Gupta, J. N. D.; "IE's improve city's solid waste collection"; June, page 12.

AIIE Technical Papers 1972

Proceedings of the 23rd Annual Conference and Convention Anaheim, California, May 31 - June 3, 1972

Subjects (coded) and titles

0100 Work measurement

0135 Personal allowances and fatigue

"Cyclic Work-Rest Exercise's Effect on Local Muscle Fatigue Rates"; Rodney K. Schutz, Don B. Chaffin; page 107.

0140 Basic motion standard data and PTS

"The MTM Systems of the World"; Daniel O. Clark, P. E.; page 165.

"Development of Standard Data for Sterescopic Microscope Work"; Walton M. Hancock, Gary Langolf, and Daniel O. Clark; page 547.

0155 Special labor category standard times

"Development of Standard Data for Stereoscopic Microscope Work"; Walton M. Hancock, Gary Langolf, and Daniel O. Clark; page 547.

"Developing Work Standards for Highway Engineers"; Richard L. Van Kirk; page 555.

0160 Work sampling

"Work Sampling Work Situations where Availability of Work is a Random Variable"; Wallace A. Burt and Roger H. Want; page 535.

"Developing Work Standards for Highway Engineers"; Richard L. Van Kirk; page 555.

0165 Macro-measurements

"Opportunities for Cost Effectiveness Systems Analysis in Local Distribution"; John H. Hoffman; page 499.

0200 Methods

0235 Operations design

"Ergonomics in Dentistry"; Tarek M. Khalil and Bruce H. Bell"; page 95.

"Visual Search by Operators in Man-Machine Systems"; Gordon H. Robinson; page 101.

"Balancing Continuous Stochastic Assembly Lines"; Warren H. Thomas and N. Richard Reeve; page 409.

0300 Facility Planning

0305 Plant-layout analysis techniques

"A Computerized Plant Layout Analysis and Evaluation Technique (Planet)"; James M. Apple and Michael P. Deisenroth; page 121.

"School Facilities Design Aided by Computer Assisted Layout"; Donald H. Denholm, P. E. and Thomas E. Morgan, Ed.D.; page 137.

0350 Material handling equipment design

"An Analytical Approach to Design High-Rise Stacker Crane Warehouse Systems"; Kailash M. Bafna, Ph.D. and Ruddell Reed, Jr., Ph.D.; page 129.

0355 Maintenance

"A Modern Newspaper Needs Modern Management"; Theodore F. Marble; page 249.

"The Plant That Will Never Wear Out"; Donald W. Murray; page 253.

"A Computerized Maintenance Control System"; David H. Pike and Earl R. Gilreath; page 295.

"Group Dynamics — A Tool for Effective Program Implementation"; William H. Shaker; page 307.

"Reliability Models for Maintenance Scheduling Systems"; Prakash T. Sathe and Walton M. Hancock; page 457.

AIIE Technical Papers 1972

0365 Plant design and construction

"The Use of OASYS I for Industrial Site Planning"; Philip E. Hicks and Benjamin R. Bowers; page 145.

"A Modern Newspaper Needs Modern Management"; Theodore F. Marble; page 249.

"Optimization of Energy Use — An Approach to Improved Design of Industrial Buildings"; Charles J. R. McClure; page 513.

0400 Applied Psychology

0405 Motivation and Psychological aspects

"Group Dynamics — A Tool for Effective Program Implementation"; William H. Shaker; page 307.

"Company Objectives and Pay No Need for Conflict"; William W. Ramsey; page 333.

0410 Physiological aspects

"Human Energy"; Morteza Fadavi, P. E."; page 89.

"Cyclic Work-Rest Exercise's Effect on Local Muscle Fatigue Rates"; Rodney K. Schutz and Don B. Chaffin; page 107.

0415 Sociological aspects

"Human Energy"; Morteza Fadavi, P. E.; page 89.

"The Role of the I.E. IN I.E.S.C."; John R. Frost; page 175.

"The Impact of Guaranteed Income Legislation on Industry"; William H. Shaker; page 191.

"The Relevance of Engineering in Society Today"; Alan J. Levy, Robert H. Roy, William R. Swett, and Paul E. Torgersen; page 567.

0420 Biomechanics

"Ergonomics in Dentistry"; Tarek M. Khalil and Bruce H. Bell; page 95.

"Visual Search by Operators in Man-Machine Systems: Measurement and Work Load"; Gordon H. Robinson; page 101.

0430 Collective bargaining

"Facing the Realities of Industrial Engineering in the 1970's"; Ben Fischer; page 303.

"Why? — — Unionize Industrial Engineers!"; Irvin Otis; page 569.

"Unionization of Industrial Engineers!"; John J. Rogers; page 573.

0435 Labor

"The Impact of Guaranteed Income Legislation on Industry"; William H. Shaker; page 191.

0440 Training

"Value Analysis Applied to Dynamic Systems"; Warren Lichtenberg and Hubert LaCroix; page 207.

0445 Learning

"Batching of Assembly Shop Orders"; John W. O'Leary and Roger L. Meisenbach; page 401.

0455 Wage incentives plans

"Facing the Realities of Industrial Engineering in the 1970's"; Ben Fischer; page 303.

"Executive Incentive Compensation"; J. L. Lipp; page 329.

"Company Objectives and Pay No Need for Conflict"; William W. Ramsey; page 333.

0460 Selection of personnel (staffing)

"A Nurse Scheduling and Allocation System in operation"; Richard C. Jelinek, Tim K. Zinn, Gerald L. Delon, and Ralph A. Aleman; page 273.

0500 Engineering economics

"Useful Computer Programs for Engineering Economy Applications"; G. A. Fleischer and J. H. Lubin; page 63.

0510 Amortization theory

"A Conceptual Model in Aid of Minimizing Equipment Acquisition Cost"; H. N. Ahuja, R. S. Butler, and N. P. Riggs"; page 49.

0520 Resource allocation

"Computer Aided Manpower Planning Using On-Line Terminals"; Thomas J. O'Neill and Mahendra Nath; page 17.

"Recent Developments in the Optimal Planning and Management of Water Resource Systems"; W. L. Meier, Jr., D. T. Phillips, and C. S. Shih; page 473.

0600 Organization planning

0610 Social science aspects

"State Criminal Court Systems"; Raymond M. Brach, Ph.D. and James M. Daschbach, Ph.D.; page 155.

0615 Control designs

"Project Management in a Government Data Processing Organization"; John C. Parmigiani; page 223.

"The Plant That Will Never Wear Out"; Donald W. Murray; page 253.

"Effective Program Management in Manufacturing"; Leonard Schehr; page 337.

0630 Organization design

"Effective Program Management"; Leonard Schehr; page 337.

0635 Financial planning

"Executive Incentive Compensation"; J. L. Lipp; page 329.

"Long-Range Manufacturing Planning — Plan Today for Tommorrow's Survival and Growth"; William H. Shaker and Yao H. Chuang; page 369.

0640 Value engineering

"Value Analysis Applied to Dynamic Systems"; Warren Lichtenberg and Hubert LaCroix; page 207.

"The Nature and Measurement of Value"; David J. DeMarle; page 507.

"Systems Simulation for Value Analysis: A Case Study"; A. Raouf, Ph.D., P. Eng.; page 521.

"VE — a Timely IE Tool in Today's Economy"; Laurence J. Sauter; page 529.

0700 Materials processing

0720 Process research

"International Companies Cooperate for Industrial Engineering R&D Developments"; Eugene L. Magad; page 185.

0740 Inspection

"The Effect of Inspection Accuracy in Statistical Quality Control"; Rufus D. Collins, Jr., Kenneth E. Case and G. Kemble Bennett; page 423.

0745 Product research

"The Nature and Measurement of Value"; David J. DeMarle; page 507.

"VE — A Timely IE Tool in Today's Economy"; Laurence J. Sauter; page 529.

0800 Production planning and control

0805 Inventory control

"Multistage Economic Lot Size Problems with Static, Deterministic Demand"; Lynwood A. Johnson; page 387.

0810 Forecasting

"Long-Range Manufacturing Planning — Plan Today for Tomorrow's Survival and Growth"; William H. Shaker and Yao H. Chuang; page 369.

0815 Scheduling

"The Value of Information in Aggregate Production Planning — A Behavioral Experiment"; Herbert Moskowitz; page 393.

0825 Routing

"A Predictive Model for Waste Collection"; Richard L. Shell, P. E. and Dean S. Shupe, P. E.; page 235.

"Opportunities for Cost Effectiveness Systems Analysis in Local Distribution"; John H. Hoffman; page 499.

0840 Analysis and measurement techniques for planning and control (systems engineering)

"Computer Aided Manpower Planning Using On-Line Terminals"; Thomas J. O'Neill and Mahendra Nath; page 17.

"Estimating for Production Rate Changes"; Paul D. Lubell and James W. Equette; page 83.

"International Companies Cooperate for Industrial Engineering R&D Developments"; Eugene L. Magad; page 185.

"A Predictive Model for Waste Collection"; Richard L. Shell, R. E. and Dean S. Shupe, P. E.; page 235.

"The Value of Information in Aggregate Production Planning — A Behavioral Experiment"; Herbert Moskowitz; page 393.

"Balancing Continuous Stochastic Assembly Lines"; Warren H. Thomas and N. Richard Reeve; page 409.

"The Redesign of the American University"; Cecil G. Johnson, P. E.; page 467.

"Solving the Distribution Dilemma of Better Customer Service at Lower Cost: Case Histories"; Bernard G.

Gust and Edward L. Weinthaler; page 495.

0850 Stockkeeping and warehousing

"An Analytical Approach to Design High-Rise Stacker Crane Warehouse Systems"; Kailash M. Bafna, Ph.D. and Ruddell Reed, Jr., Ph.D.; page 129.

"How Much Company-Owned Warehouse Space Can You Economically Justify in Your Distribution Plan"; Alvin Etue; page 487.

"Solving the Distribution Dilemma of Better Customer Service at Lower Cost: Case Histories"; Bernard G. Gust and Edward L. Weinthaler; page 495.

0855 Control models and simulation

"A Conceptual Model in Aid of Minimizing Equipment Acquisition Cost"; H. N. Ahuja, R. S. Butler, and N. P. Riggs; page 49.

"Production Planning and Control Activities in the Post Office"; S. T. Hardy, L. J. Krajewski, L. P. Ritzman, L. D. Vitt; page 377.

0900 Data processing systems design

0905 Digital computers

"A Computerized Plant Layout Analysis and Evaluation Technique (Planet)"; James M. Apple and Michael P. Deisenroth; page 121.

"School Facilities Design Aided by Computer Assisted Layout"; Donald H. Denholm, P. E. and Thomas E. Morgan, Ed. D.; page 137.

0925 Auxiliary equipment

"Useful Computer Programs for Engineering Economy Applications"; G. A. Fleischer and J. H. Lubin; page 63.

"The Use of OASYS I for Industrial Site Planning"; Philip E. Hicks and Benjamin R. Bowers; page 145.

0930 Analysis techniques

"Procedures for Analysis of Information Systems Effectiveness"; William S. Smith, Jr.; page 39.

"State Criminal Court Systems"; Raymond M. Brach, Ph.D. and James M. Daschbach, Ph.D.; page 155.

"Optimization of Energy Use — An Approach to Improved Design of Industrial Buildings"; Charles J. R. McClure; page 513.

0940 Information systems design

"An Engineering Application of the Cost/Schedule Control System"; B. N. Day and E. L. Will; page 3.

"Managing Information Systems Projects Successfully"; Edward D. Nelson; page 13.

"Computer Aided Quality Control System"; Raoji R. Patel; page 29.

"Procedures for Analysis of Information Systems Effectiveness"; William S. Smith, Jr.; page 39.

"Project management in a Government Data Processing Organization"; John C. Parmigiani; page 223.

1000 Applied mathematics and operations research

1005 Mathematical programming

"Sensitivity Analysis in Linear Integer Programming"; V. Joseph Bowman, Jr.; page 345.

"Functional Posynomials in Geometric Programming"; Don T. Phillips and Charles S. Beightler; page 363.

"Recent Developments in the Optimal Planning and Management of Water Resource Systems"; W. L. Meier, Jr., D. T. Phillips, and C. S. Shih; page 473.

"How Much Company-Owned Warehouse Space Can You Economically Justify in Your Distribution Plan"; Alvin Etue; page 487.

1015 Simulation concepts

"VERT — A Tool to Assess Risk"; Gerald L. Moeller, P. E.; page 211.

"Simulation Analysis of Timber-Harvesting Systems"; Leonard R. Johnson, Donald L. Gochenour, Jr., and Cleveland J. Biller; page 353.

"Systems Simulation for Value Analysis: A Case Study"; A. Raouf, Ph.D., P. Eng.; page 521.

1025 Monte Carlo concepts

"Work Sampling Work Situations where Availability of Work is a Random Variable"; Wallace A. Burt and Roger H. Wang; page 535.

1035 Sampling concepts

"Minimum Cost Multivariate Quality Control Tests"; Douglas C. Montgomery and Phillip J. Klatt; page 431.

1040 Acceptance sampling

"The Effect of Inspection Accuracy in Statistical Quality Control"; Rufus D. Collins, Jr., Kenneth E. Case, and G. Kemble Bennett; page 423.

"A General Set of Bayesian Attribute Acceptance Plans"; Larry R. Oliver and Melvin D. Springer; page 443.

1045 Quality control techniques

"Computer Aided Quality Control System"; Raoji R. Patel; page 29.

"Minimum Cost Multivariate Quality Control Tests"; Douglas C. Montgomery and Phillip J. Klatt; page 431.

"A General Set of Bayesian Attribute Acceptance Plans"; Larry R. Oliver and Melvin D. Springer"; page 443.

1050 Experimental design

"VERT — A Tool to Assess Risk"; Gerald L. Moeller, P. E.; page 211.

1070 Reliability

"Reliability Models for Maintenance Scheduling Systems"; Prakash T. Sathe and Walton M. Hancock; page 457.

1100 Costs and cost control

1115 Budgets

"Merits and Scope of Cost Reduction"; P. Kozma; page 73.

"Estimating for Production Rate Changes"; Paul D. Lubell and James W. Bequette; page 83.

"Variance Analysis for Patient Centered Nursing Management"; Robert N. Davis and James M. Cowie; page 261.

"Projecting Manpower Requirements from Staffing Utilization Charts"; Charles H. Olson, P.E.; page 283.

1120 Control procedures

"An Engineering Application of the Cost/Schedule Control System"; B. N. Day and E. L. Will; page 3.

"Merits and Scope of Cost Reduction"; P. Kozma; page 73.

1125 Purchasing and economic lot sizes

"Multistage Economic Lot Size Problems with Static, Deterministic Demand"; Lynwood A. Johnson; page 387.

"Batching of Assembly Shop Orders"; John W. O'Leary and Roger L. Meisenbach; page 401.

1200 Industrial engineering education

1205 Curricula — undergraduate

"Professionalism Creates a Gap in Industrial Engineering"; John H. Taylor; page 199.

1220 Education attainment

"The Redesign of the American University"; Cecil G. Johnson, P. E.; page 467.

1300 Industrial engineering

1305 Industrial engineering — general

"The Engineering Management of Industrial Systems in Selected Southeast Asia Countries: Problems and opportunities"; Pakorn Adulbhan; page 311.

"Systems Engineering and AIIE — Words or Deeds"; William A. Smith, Jr.; page 575.

1310 Industrial engineer

"The Role of the I.E. in I.E.S.C."; John R. Frost; page 175.

"Why? — — Unionize Industrial Engineers!"; Irvin Otis; page 569.

"Unionization of Industrial Engineers"; John J. Rogers; page 573.

1315 Management

"Managing Information Systems Projects Successfully"; Edward D. Nelson; page 13.

"Professionalism Creates a Gap in Industrial Engineering"; John H. Taylor; page 199.

"A Practical Academic Cooperative System (PAC) to Increase the Efficiency of Management Application"; I. Ilhami Karayalcin; page 315.

1320 Industrial engineering in hospitals

"Variance Analysis for Patient Centered Nursing Management"; Robert N. Davis and James M. Cowie; page 261.

"A Nurse Scheduling and Allocation System in Operation"; Richard C. Jelinek, Tim K. Zinn, Gerald L. Delon, and Ralph A. Aleman; page 273.

"Projecting Manpower Requirements from Staffing Utilization Charts"; Charles H. Olson, P. E.; page 283.

"A Computerized Maintenance Control System"; David H. Pike and Earl R. Gilreath; page 295. ■